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# **Software Requirements Specification**

**Project: HAS\_51**

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**Publication date: 2022-03-06**

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# 1 Introduction

[SRS-1] Project name : Hotel Automation System

Group id : 51

Student name : Ayush Prajapati - 201901099

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Type: Information

Priority: High

## 1.1 Purpose

[SRS-2] The purpose of HAS is to provide and maintain every details of hostel management staff, catering staff, customers etc. on single click. The manager and receptionist will have the privilege to access the whole database and they can update in it. Customers can easily have services like registration, login, room booking, payment etc.

Type: Section

Priority: High

## 1.2 Scope

[SRS-3] HAS will simplify the day by day processes of the hotel. Customers and staff can access information via application or on the spot. The database will be used to store the whole data so that it can be used for further access.

Type: Section

Priority: High

## 1.3 Product perspective

[SRS-4] The database should contains the details of customers like name, phone number, their booking details. It also contains room details like room no, type, rate, duration of stay etc.

Type: Section

Priority: High

### 1.3.1 System interfaces

[SRS-5] The system should be promoted by the database. The database will contains customer details and room details.

Type: Interface Requirement

Priority: High

### 1.3.2 User interfaces

[SRS-6] It should be an application or website on browser. It should have services like booking, bill generator, payment and access to database for some extend as per their role. The users are customer, manager, receptionist.

Type: Interface Requirement

Priority: High

### 1.3.3 Hardware interfaces

[SRS-7] The website or application should be able to run on any browser in any electronic devices like desktop computer, mobile, laptop, tablet etc.

Type: Interface Requirement

Priority: High

#### **1.3.4 Software interfaces**

[SRS-8] Web server and database server will be used in OS like windows, ubuntu. The backend development will be created with the use of Java, HTML, JavaScript.

Type: Interface Requirement

Priority: High

#### **1.3.5 Communications interfaces**

[SRS-9] The system shall be using HTTP or HTTPS protocol for communication over Internet. It shall use TCP or IP protocol for intranet communication.

Type: Interface Requirement

Priority: Medium

#### **1.3.6 Memory constraints**

[SRS-10] The system is web based so the storage concern will not happen. Users will get required storage space.

Use of dissent RAM will solve the RAM concern.

Type: Non-func. Requirement

Priority: Medium

#### **1.3.7 Operations**

[SRS-11] Customer can register for services by providing username and phone number and other details.

To get the room details, customer should choose room type and duration first.

Payment method should be chosen to make safe payment and after that bill will be generated with details.

The database should be update at a time.

Type: Functional Requirement

Priority: High

#### **1.3.8 Site adaptation requirements**

[SRS-12] Usability

Availability

Maintainability

Type: Functional Requirement

Priority: Medium

#### **1.3.9 Interfaces with services**

[SRS-13] Customer should login or register using email/phone number with password.

There should be facility for registration or updating in database for customers, manager, receptionist.

Type: Functional Requirement

Priority: High

## 1.4 Product functions

[SRS-14] There will be a function for Registration which will be used by customers to register for bookings and other access.

Customer can see room details and book rooms after login so the Login function will be available.

A function will provide all details of rooms with availability, type, rate.

A function will available to see the details of existing customers.

There will be a function to generate bill.

The customers will have access of payment function for safe payment.

Type: Functional Requirement

Priority: High

## 1.5 User characteristics

[SRS-15] Manager - He / She should be able to have access of the whole database of hotel so that he / she can perform any task related to booking or updating.

Receptionist - He / She should be able to update the details of the database according to customer details, room allotment and availability.

Customer - He / She should have access of the database of room details like room type, rate, booking, availability.

Type: Section

Priority: High

## 1.6 Limitations

[SRS-16] Customers must register through website or application after he/she can have access of other facilities.

Customers cannot see the details of other users. They can only see the details of all rooms.

Only manager and receptionist have access to see the whole database.

Type: Section

Priority: Medium

## 1.7 Assumptions and dependencies

[SRS-17] After registration, customer will have valid credentials for login. They will be provided username and password for their safety.

Customer should provide valid details in registration.

Type: Section

Priority: High

## 1.8 Definitions

[SRS-18] Features and services are already discussed.

Type: Section

Priority: Medium

[SRS-19] HAS - Hotel Automation System

HTTP - Hyper Text Transfer Protocol

OS - Operation System

RAM - Random Access Memory

HTML - Hyper Text Markup Language

TCP - Transmission Control Protocol

IP - Internet Protocol

Type: Interface Requirement

Priority: Medium

## 2 Requirements

[SRS-20] we have many Requirements(Functional and Non-functional) for various types of user, here it's listed below.

(Functional)

### 1. Registration

The Customer should be able to register with their details.

The system should record following customer details into member database.

1. Name
2. Email
3. Password
4. Address
5. DOB

The system shall send verification message to email.

### 2. Logging In

The system should verify the customer email & password against the member database when logging in.

After login, member should be directed to Home screen.

### 3. Reservation

The system should enable customer to check for availability of rooms.

The system should record booking details into database.

### 4. Receptionist Access

The system should provide customer desk portal access to receptionist for providing response to customer inquiry.

### 5. Manager Access

The system should enable manager full modification access to customer ,booking and room information.

### 6. Payment Management System

The system should allow customer to pay bill via online using credit or debit card.

Type: Section

## 2.1 External interfaces

[SRS-21] Different payment methods will be used for payment so it will make connection with different bank portals.

Type: Interface Requirement

Priority: High

## 2.2 Functions

[SRS-22] Register : Customers can register by providing name, phone number, age etc. private details. Customer will also be provide username and password for login.

Login : Customer can login using username and password after they can go for further services.

Customer Details : Manager or receptionist can see all details of particular customers.

Room Details : Any user characters can use this function to see the room details like room type, rate, availability, duration of stay.

Add Customer : Receptionist can add customer details to the database and allot them rooms as per their requirements.

Available Rooms : Receptionist and manager can see total number of available room details.

Update Rates : Manager or receptionist can update rates of rooms on special occasions.

Booked Rooms : Manager and receptionist can see the details of booked rooms like customer name, room number, type, rate etc.

Generate Bill : Manager and receptionist can generate bill of customers by providing customer name and room number.

Book Room : Customer can book room by using this function after selecting room type and rate.

Payment : Customer can do payment by using this service.

Feedback : Customer can give any feedback.

Type: Functional Requirement

Priority: High

## 2.3 Usability requirements

[SRS-23] There should be a user guide tour for new customers so that the usage of website or application will be easy for them.

Type: Interface Requirement

Priority: Medium

## 2.4 Performance requirements

[SRS-24] After successful login or registration, the customer profile will be visible with name and necessary details.

Type: Non-func. Requirement

Priority: Medium

## 2.5 Logical database requirements

[SRS-25] User data is kept on application and website and also in database.

Type: Non-func. Requirement

## 2.6 Design constraints

[SRS-26] To make system more responsive there will be worker and queue model (Queue will have the messages and worker will triggered and execute when it receive messages from the queue).

Type: Interface Requirement

Priority: Medium

## 2.7 Standards compliance

[SRS-27] There will be secured payment under payment security standards.

Type: Information

Priority: High

## 2.8 Software system attributes

[SRS-28] Correctness, Flexibility, Integrity, Portability, Testability

Type: Non-func. Requirement

Priority: Medium

## 3 Verification

[SRS-29] The improvement and update will be done on the basis of user feedback which they provides.

Type: Information

Priority: Medium

## 4 Supporting information

[SRS-30] The system facilities are implemented on basis of other well known hotel services and customer requirement survey.

Type: Information

Priority: Medium

## 5 References

[SRS-31] <https://dipeshagrawal.files.wordpress.com/2018/07/srs-hotel-management-system-ok.pdf>

[https://www.academia.edu/10313728/srs document for hotel management system](https://www.academia.edu/10313728/srs_document_for_hotel_management_system)

<https://studentprojectguide.com/project-report/srs/hotel-management-system-srs/>

Type: Information

Priority: Low